

# TASER

Protect Life

User Course TASER® X26P™ Conducted Electrical Weapon (CEW)

Released April, 2013

## **TRAINING VERSION 19**

With the release of Version 19 all prior TASER training materials and Training Bulletins are superseded and rendered obsolete

- The contents of this course must be considered and understood as a whole
- Archive prior versions of training materials and replace with Version 19



## PROGRAM REQUIRES

Prior to beginning any class every participant *MUST* receive, fully read, understand, and accept and abide by the most current versions of:

- 1. TASER Warnings, and
- 2. Instructor and User Warnings, Risks, Liability Release, Covenant Not to Sue, and Agreement to Fully Indemnify form (the "RELEASE")

Each person *MUST* also complete, date, sign, and return the RELEASE to instructor.

The signed RELEASE must be returned to TASER



#### **DISCLAIMERS**

- TASER training materials may include videos or other information from outside sources for illustrative purposes to explain certain concepts and facilitate discussion. The inclusion of any video is not an endorsement of the video, its contents, or tactics.
- TASER does NOT recommend or endorse any of the procedures, techniques, tactics, or methods depicted or illustrated in these outside materials and specifically disclaims any liability for any such use, beliefs, or practices.

# Agency Policy Considerations for Use of Force

- TASER CEWs are serious weapons and are to be treated as such at all times
- The TASER CEW is NOT a substitute for deadly force



## Goal

To provide the basic operational theory and practical training to reasonably safely and effectively operate the TASER X26P Conducted Electrical Weapon (CEW).



#### SAFETY RULES

- No live firearms in training area
- Every participant is a safety officer. Bring all unsafe conditions immediately to the attention of the instructor. If an unsafe condition occurs or is noticed during an exercise, the student or instructor observing the unsafe condition will call, "Stop action!"
- All activity will stop when any student or instructor calls, "Stop action!"



#### SAFETY RULES

- The safety switch of all TASER CEWs will remain in the down (SAFE) position unless the instructor directs students to arm the CEW or when it is appropriate to do so during a training drill or scenario
- TASER CEWs must not be pointed at any person or body part unless the instructor directs students to do so as part of a training exercise or when it is appropriate to do so during a training scenario



## SAFETY RULES

- A TASER CEW loaded with a live cartridge must not be pointed at another person or body part except during voluntary exposures
- An LS (blue) training cartridge must be used for simulation exercises when the subject being targeted is wearing a protective simulation suit
- LASERs must not be pointed at eyes
- Probes must be removed according to proper protocol



## TASER CEWs Are Not Risk Free



# **AWARNING**

#### **Conducted Electrical Weapon**

- Can temporarily incapacitate target.
- Can cause death or serious injury.
- Obey warnings, instructions and all laws.
- Comply with current training materials and requirements.
- See www.TASER.com.

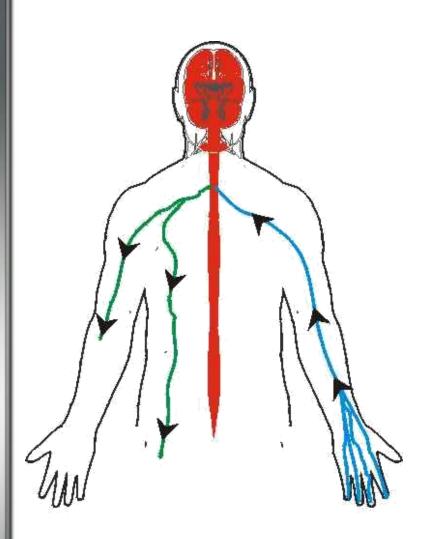


At this time distribute, review and understand the current TASER product warnings



# Change in Behavior





# Nervous System Stun vs. NMI

#### **Central Nervous System**

Command center – brain & spinal cord.

#### **Motor Nervous System**

Carries commands from the brain to muscles (NMI systems affect BOTH the sensory and motor nerves)

#### **Sensory Nervous System**

Brings information Into the brain (effected by stun systems)



# Brief Overview of Selected Portions of Medical and Safety

Review TASER's CEW Research Index and other documents and materials contained on the Training DVD and on TASER's website.



#### CARDIAC

CEW cardiac risks are not zero.

CEW cardiac risks are sufficiently remote that making accurate risk or probability estimates are very difficult.



#### CARDIAC

Experts have identified the following key factors related to CEW cardiac risks:

- Dart-to-heart ("DTH") distances,
- Amount of delivered electrical charge

The further a CEW dart is away from the heart and the lower the delivered electrical charge the lower the risk of the CEW affecting the heart.



#### CARDIAC

To reduce cardiac risks (when possible):

- Target the back
- Avoid targeting chest
- Avoid prolonged and repeated exposures



#### Physiologic/Metabolic Effects

CEWs produces physiologic or metabolic effects

- The longer the CEW exposure the greater the potential effects
  - Just like running up two flights of stairs will have a greater effect than running up one flight of stairs, or
  - Fighting, wrestling, or grappling for 60 seconds has a greater effect than 30 seconds, or 10 seconds.

As with any use of force, reasonable efforts should be made to minimize the number and durations of CEW exposures and potential resulting physiologic and metabolic effects

#### Physiologic or Metabolic Effects

Studies show CEW effects are usually comparable or less than:

- Fighting
- -Fleeing



# TASER Technology Medical Testing

Numerous human studies have shown lower effects on human physiology as compared to some other force options

Go to www.taser.com for this and other related research



## **Avoid Extended Durations**

Several law enforcement groups have set out 15 seconds (multiple applications or continuous) of CEW exposure as a significant safety point:

- Police Executive Research Forum (PERF), Community Oriented Policing Services (COPS), and US Department of Justice (DOJ) (March 2011)
- Int'l Association of Chiefs of Police (IACP) (April 2010)
- American Academy of Emergency Medicine (AAEM) (May 2011)
- National Institute of Justice (NIJ) (May 2011)
- Civil Rights Division, DOJ (December 2012)



# PERF Guideline 21 (03/11)

"Personnel should use [a CEW] for one standard cycle (five seconds) and then evaluate the situation to determine if subsequent cycles are necessary."

"Personnel should consider that exposure to the [CEW] for longer than 15 seconds (whether due to multiple applications or continuous cycling) may increase the risk of death or serious injury."

"Any subsequent [CEW] applications [beyond 15 seconds] should be independently justifiable, and the risks should be weighed against other force options."

# **CEW Emergency Dept Evaluation**

(Journal of Emergency Medicine, May 2011)

Reviewed studies did not report any evidence of dangerous laboratory abnormalities, physiologic changes, or immediate or delayed cardiac ischemia or dysrhythmias after exposure to CEW electrical discharges of up to 15 seconds.



#### HIGHER RISK POPULATIONS

CEWs, like other force options, have not been laboratory tested on:

- Pregnant women
- Infirm
- Elderly
- -Small children
- Low body-mass index (BMI) persons

CEW use on these individuals could increase the risk of death or serious injury

# Physiologically or Metabolically Compromised Persons

- Law enforcement personnel are called upon to deal with individuals in crises that are often physiologically or metabolically compromised and may be susceptible to arrest-related death ("ARD")
- The subject may already be at risk of death or serious injury as a result of pre-existing conditions, individual susceptibilities, or other factors
- Any physiologic or metabolic change may cause or contribute to death or serious injury
- Follow your agency's guidance and policies when dealing with physiologically or metabolically compromised persons



# Independent Conclusions

All CEW users/instructors are encouraged to do their own research and analysis.

Some of the latest CEW Research can be viewed at:

http://www.TASER.com/research-and-safety/science-and-medical



# Voluntary Exposures



# Voluntary Exposure

- TASER does <u>NOT</u> require a CEW exposure for instructor or user certification.
- Voluntary CEW exposure is each agency's sole and exclusive decision
- Voluntary CEW exposures must only be conducted by a currently certified TASER Instructor adhering to TASER's training
- Group CEW exposures are prohibited



# Voluntary Exposure

- CEW/NMI exposure involves strong muscle contractions and physical exertion similar to strenuous athletic activities, e.g. weight lifting, wrestling, or combat arts. Risks of injury from response, stress, movements, strong muscle contractions, physical exertion, falling, etc. while low, are not zero (see full warnings)
- Notify instructor verbally and in writing on RELEASE form of any pre-existing injuries, medical conditions, or individual susceptibilities
- All volunteers must review the TASER warnings and complete the RELEASE <u>prior</u> to any exposure

# Voluntary Exposures

Instructors have NOT received training on how to determine if a student should or should not receive a voluntary CEW exposure. Thus, the decision is SOLELY and EXCLUSIVELY with the agency and individual student.

The Instructor has the authority to refuse to allow a student to take a voluntary exposure based on the student's pre-existing conditions, susceptibilities, or injuries; for any reason; or for no reason.



# Voluntary Exposure

#### **Benefits**

- Instructor credibility as a leader and subject matter expert
- Officers can better understand the effects of the CEW
  - For deployment
  - Confidence to go
     "hands-on" with a subject without receiving shock
  - Self-defense
  - Court expertise
  - Secondary exposures

#### Risks

- Stress, anxiety, panic
- Exertion and effects
- Strong muscle contractions and effects
- Discomfort or painful experience
- Significant injuries have occurred

(SEE FULL WARNINGS)



# Voluntary Exposure Guidelines

- If probes are fired in lieu of attaching spent wires or alligator clips, then eye protection is required for the spotters, volunteer, and anyone downrange
- Probes should be deployed from behind the volunteer (avoids face, throat, genitals, breasts, chest or area of the heart).



# Voluntary Exposure Guidelines

Persons volunteering for a CEW exposure must either be:

- properly supported by two spotters so they do not fall, or
- placed face down on the mat prior to exposure
- Realistic field probe placements only



# Voluntary Exposure Guidelines

Each spotter should hold an upper arm of the standing volunteer under the armpit, so that:

The shoulder, arm, elbow, and wrist are to be stabilized close to the body to prevent stress, tension, or torsion on the joints

- The volunteer can be safely supported and lowered to the ground after being hit:
  - Without twisting, rotating, or putting undue stress on the arm or shoulder; or
  - Flailing forward after discharge

# Involuntary Reflexes

# Voluntary Exposure WARM-UP

Prior to receiving a CEW exposure, volunteers <u>SHALL</u> stretch and warm-up as before exercising or athletics.

- Back
- Shoulders
- Arms
- Legs
- Torso



# Warm Up Video

## Volunteer Safety Requirements

- Proper matting
- Clear area of bystanders and objects
- Make area safe
- Careful probe removal using proper protocols

Subjects with pre-existing injuries, medical conditions, or individual susceptibilities should avoid CEW exposure or at a minimum avoid exposure to areas of concern

WARNING: FAILURE TO FOLLOW SAFETY PROCEDURES INCREASES THE RISK OF INJURY.

# Voluntary Exposure Training Guidelines

- All Voluntary exposures must be field use realistic
- Utilize probe hits to allow students to remove probes
- Target different parts of the body to show different effects
- Demonstrate one probe hit with (three-point) drive-stun follow up
- Demonstrate difference between probe hits and drive stun



## **Spotters**

#### **Probe Removal**

## Voluntary Exposures

After demonstrating the following exposures, remaining hits should be done with the volunteer lying face down targeting the legs, or other areas of the body if necessary to avoid pre-existing injuries, medical conditions, or individual susceptibilities



### Back shot

## Leg Hit

## Clothing Disconnect

## Small Spread

## Hitting Items in Pockets

## Hit Remainder of Volunteers Laying Down

## CEW Smart Use Considerations

TASER does not provide legal advice.



### "Quantum of force"

#### Basically means:

- Reasonably foreseeable (to the officer)
- Effects and injuries of a chosen force option
- Under the totality of the circumstances



#### 4th Amendment Risk Benefit Standard

"[I]n judging whether [officer's] actions were reasonable, we must consider the risk of bodily harm that [officer's] actions posed to [suspect] in light of the [suspect's] threat to the public that [officer] was trying to eliminate."

Scott v. Harris, 550 U.S. 372, 383 (2007)



#### 4<sup>th</sup> Amendment – CEW Probe Mode

CEW in dart mode constitutes an "intermediate, significant level" of force that must be justified by a strong government interest

<sup>-</sup> Pepper spray and batons are also intermediate force options.

CEW against a non-violent misdemeanant who appeared to pose no immediate threat and who was given no warning was unconstitutional excessive force

#### 4<sup>th</sup> Amendment

"It is an excessive and unreasonable use of force for a police officer repeatedly to administer electrical shocks with a [CEW] on an individual who no longer is armed, has been brought to the ground, has been restrained physically by several other officers, and no longer is actively resisting arrest."\*

#### 4<sup>th</sup> Amendment

"...officers using unnecessary, gratuitous, and disproportionate force to seize a secured, unarmed citizen, do not act in an objectively reasonable manner and, thus, are not entitled to qualified immunity."\*



#### **CEW Probe Mode Guidance**

(**Generally**) To use CEW in probe mode officer must reasonably perceive subject to be:

- An immediate threat of harm/injury, or
- Fleeing or flight risk from serious offense crime and the officer is justified in tackling the person.

Consider necessity of a verbal warning before deploying the CEW. Be aware of foreseeable primary risks and risks of secondary injury, especially falls from heights or on hard surfaces, ignition of flammables, or effects of intermittent clothing disconnects.



### Beaver v. City of Federal Way

1. The use of a CEW involves the application of force.

Each use of force [including each CEW cycle or 5 seconds of discharge] on a person that is a 4<sup>th</sup> Amendment seizure is the application of force and must be objectively reasonable.

2. Each additional CEW [5 seconds of] application involves an additional use of force.

This is true of any use of force.

#### Beaver v. City of Federal Way

3. Multiple CEW applications [each 5 seconds of discharge] cannot be justified solely on the grounds that a suspect fails to comply with a command, absent other indications that the suspect is an immediate threat or about to flee [from a serious crime].

This is particularly true when more than one officer is present to assist in controlling a situation.

## Beaver v. City of Federal Way

4. Any decision to apply multiple CEW [5 second] applications must take into consideration whether a suspect is capable of complying with officers' commands.

This would apply to whether a suspect is capable of complying: physically, emotionally, language barrier, mental condition, etc.

## Graham v. Connor Factors as Risk Prioritized Ranked by Chew v. Gates

Order of Importance - Potential for Injury Risk Importance

- 1. Immediate threat to safety of officers/others
- 2. Actively resisting
- 3. Circumstances tense, uncertain, rapidly evolving ("pace" of events)
- 4. Severity of the crime at issue
- 5. Attempting to evade seizure by flight





#### **Assault Video**

- Subject is an immediate threat
- Circumstances are tense, uncertain and rapidly evolving
- Serious crime
- No verbal warning (is this a problem?)
- Quantum of force (standing on grass)
- One cycle from an X2
- Verbal commands and an opportunity to comply
- Recorded on TASER CAM HD



#### Woman with Bat Video

#### Additional Force Factors

- Court may consider "the availability of [less injurious] alternative methods of capturing or subduing a suspect." <sup>1</sup>
- Court may consider what officers knew about the suspect's health, mental condition, or other relevant frailties.\*2
- Officer should give a warning before force when appropriate.



### Clarifying the *Graham* Factors:

(Immediate threat to safety of officers or others)

Graham's "immediate" vs. "possible" threat:

"[A] simple statement by an officer that he fears for his safety or the safety of others is not enough; there must be objective factors to justify such a concern."

- Beaver "possibly" had a weapon under him
- Brooks "could" have fled in car

ONLY "immediate" threats – NOT "possible" threats

Force decision must reasonably consider (as time and circumstances reasonably permit):

- Officer's reasonable perceptions of subject's actions or behaviors the officer is attempting to stop, thwart, or control
- Officer's objective for using force
  - Use CEW only to accomplish lawful objectives
- Quantum of Force:
  - Foreseeable risks of injuries or harm to subject resulting from force to be used
  - Foreseeable secondary risks of injury
- (When necessary) Give warning and reasonably perceive subject capable of complying with demands

- Follow "targeting guidelines" when feasible and use 5second "window of opportunity" to restrain and "cuff under power"
- Every CEW trigger pull or 5 seconds of discharge must be justified under the specific circumstances of the incident
- CEW use is within:
  - Law (correctly applied legal standards of care) and
  - Agency Policy and Training
- Do not use CEW for:
  - verbal defiance
  - belligerence
  - punishment
  - horse play



- Fully document
  - Subject's threats, behaviors, and actions
  - Each use or application of force
  - Each CEW trigger pull or 5-second discharge
  - Each mode of CEW use
  - Each injury or allegation of injury
- Avoid multiple, repeated, prolonged, extended, or continuous CEW exposures<sup>1</sup> unless necessary to counter reasonably perceived threat(s) and it is justifiable
  - always document your justifications

#### If person is not an immediate threat or flight risk:

- do not immediately resort to CEW without first attempting to use negotiation, commands, or physical skills<sup>1</sup>
- avoid using CEW on person who is actually or perceived to be mentally ill<sup>2</sup>
- avoid using CEW on elevated risk population member, unless necessary and justifiable
- avoid intentionally targeting sensitive areas when possible
- do not use pain compliance if circumstances dictate that pain is reasonably foreseeably ineffective (usually due to drug, alcohol, or mental illness caused elevation of pain tolerance)



## **CEW Legal Resources**

AELE ECW Resources/References portal

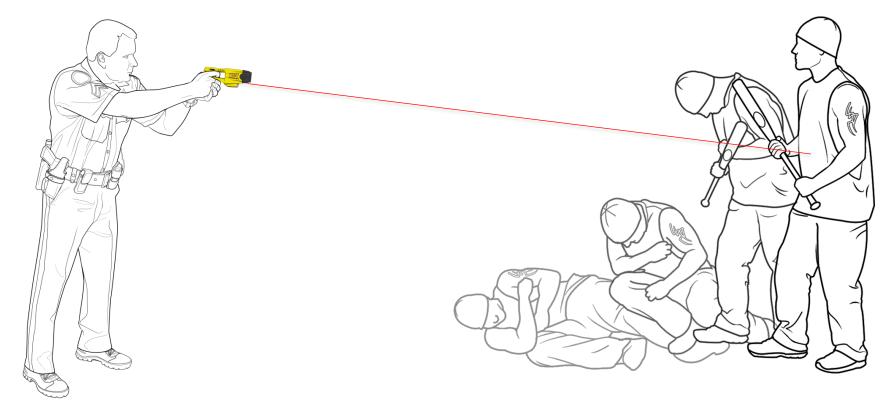
http://www.aele.org/law/Digests/ECWcases .html

- www.CEWlaw.info for more information
- A Use of Force Matrix and Constitutional Timeline are in the Legal module of the instructor manual
- More use of force resource material is in the Support Materials/Legal folder on the Version 19 training DVD



TASER X26P
Conducted Electrical Weapon
(CEW)





Conducted Electrical Weapons (CEW's) are designed to use propelled wires or direct contact to conduct energy to affect the sensory and/or motor functions of the nervous system.

The TASER X26P is a software upgradable CEW manufactured by TASER International, Inc.

#### TASER X26P

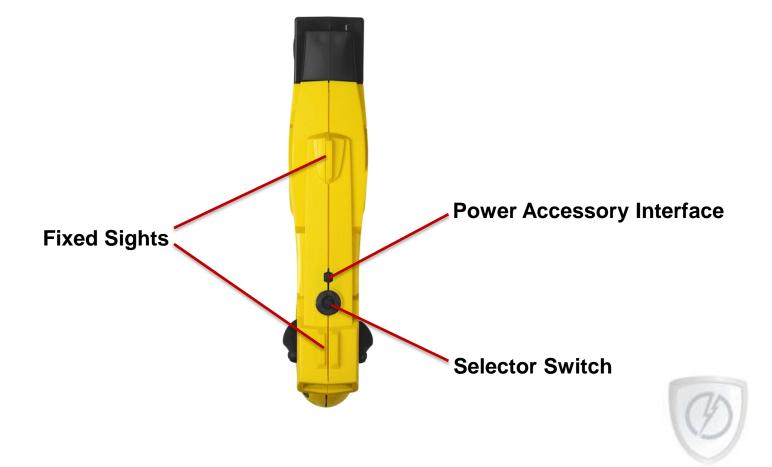




#### TASER X26P



#### TASER X26P



## X26P Safety Switch

- The ambidextrous safety switches do not operate independently of each other
- Do not block the Safety Switch on the side of the X26P while attempting to move it on the other side.
  - Blocking the safety switch can cause it to break and disable the X26P



## **Trigger Operation**

- Single trigger pull and release discharges an electrical charge for a 5-second cycle
- Shift the Safety Switch down (SAFE) to stop a discharge at any time (e.g., if accidentally discharged)
- Holding the trigger continuously beyond the 5second cycle will continue the electrical discharge until the trigger is released, unless you are using an APPM. The discharge will stop once the trigger is released after the initial 5second cycle

## Re-Energizing Cartridge

- Once a cartridge is fired, the operator can re-energize the cartridge by pulling the trigger
- Each trigger pull, when the X26P is not cycling, will initiate another 5-second cycle
  - -Additional trigger pulls during the 5-second cycle will not extend the cycle unless the trigger is held back.



# Central Information Display (CID)





### Display Count Up

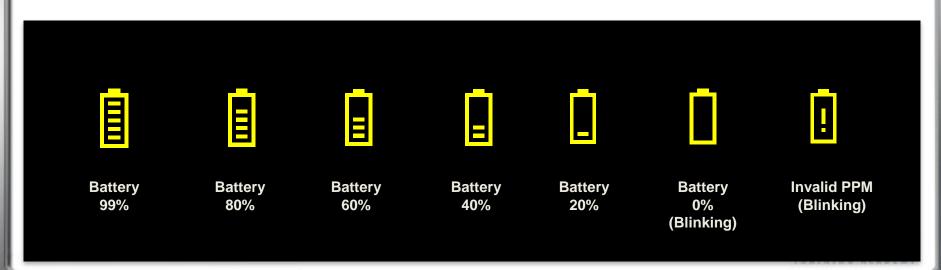
- Display will count up for single trigger pull (e.g., 1,2,3,4,5)
- Will continue to count up (e.g., 6,7,8...) if the trigger is held past the 5-second cycle





#### Power Source Status Icons

- Reads the battery consumption and displays the remaining battery life on the CID
- Battery pack should be changed or TASER Cam
   HD should be charged at ≤ 20%
- Battery bars in CID shows 20% increments



## System Status Monitoring and Reporting

The X26P monitors its system and functional status



NO ICONS
No problems
detected during
diagnostics



MAJOR FAULT
Likely accompanied
by a noticeable nonessential subsystem
failure within the
X26P, like the
flashlight or LASER
not working, but
X26P can still be
used.



FAULT
Indicates a
system failure.
This X26P is NOT
to be used for
duty.



#### Selector Switch

 Used to select the sighting options of the X26P and place the unit into stealth mode

**Switch** 

- Use only your finger to depress the Selector Switch
  - Do not use objects like pens,
     paper clips or knives as this can
     result in switch breakage or the
     switch could become stuck

    Selector



## LASER and Light Settings

- OO Stealth, no LASER, no flashlight
- LO LASER only
- OF Only flashlight
- LF LASER and flashlight





#### Stealth Mode

 Pressing the Selector Switch when the Safety is in the up (ARMED) position will initiate Stealth Mode

- LASER and flashlight will turn off
- CID dims
- Press again or put the safety switch in the down (SAFE) position
   to cancel Stealth Mode



## Performance Power Magazine (PPM)

- Contains three 3-volt lithium power cells
- Stores enough power for approximately 500+ five-second cycles



#### PPM Replacement



- 1. Press the PPM release button
- 2. Pull Down on the PPM



#### **PPM Versions**







**APPM** 

**TPPM** 

**TASER Cam HD** 

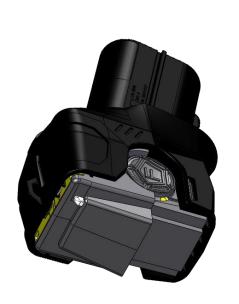
Automatic-shutdown Performance Power Magazine (APPM) - designed to automatically stop the cycle after 5 seconds, even if the trigger is held down)

Tactical Performance Power Magazine (TPPM) - Extended finger grip

**TASER Cam HD** - Utilizes HD color video and functions similar to the original TASER Cam)



#### PPM Versions





Extended Performance Power Magazine (XPPM)
Provides 2<sup>nd</sup> cartridge storage while providing better
protection for blast doors and orienting cartridge for reload if
necessary



## Extended Performance Power Magazine (XPPM)



#### TASER CAM HD



- 100 5-second cycles at optimum conditions
- 1 hour of audio/video at maximum resolution and 30 frames per second
- System recording is "looped"



#### TASER CAM HD



 System records both audio and video when the safety switch is in the up (ARMED) position

 Audio and video are configurable



#### TASER CAM HD



## Charge Metering

The X26P CEW constantly measures its output, pulse-by-pulse, to optimize the delivered charge and increase the likelihood of neuro-muscular incapacitation (NMI)



 A daily spark test should be conducted once every 24 hours or prior to the start of your shift for individually issued X26P

- The reason for the spark test is:
  - To check that the X26P is sparking
  - To check the battery performance



 One spark (1/19<sup>th</sup> of a second) is adequate. However this is not a practical duration. As long as the officer sees a visible spark between the electrodes, it is not necessary to extend the duration. In most cases, this takes less than 1 second.



#### When conducting a spark test:

- 1. Follow agency protocol
- 2. Point in a safe direction
- 3. Keep body parts away from the front of the cartridge
- 4. Safely remove the cartridge (beware of static discharge)
- 5. Put safety switch in the up (ARMED) position



## Spark Test (cont.)

When conducting a spark test:

- 6. Pull the trigger
- 7. Visually and audibly inspect the arc from arm's length
- 8. Put safety switch in the down (SAFE) position
- Safely load the CEW before taking it into the field



When conducting a spark test:

- 10. Listen for typical spark pulse rate and if pulse rate is slow replace battery (PPM/XPPM) and retest. If still slow, take out of service
- 11. Be aware of potential stress memory concerns of deactivating CEW in field use too quickly.\*

#### Pulse Calibration

- X26P is equipped with a pulse calibration system that measures the output of every single pulse
- Operator may detect a slight change in the pulse rate during 5 second spark test. This does not affect the X26P's effectiveness



## **Enhanced Data Logs**

- Trilogy Logs
  - Event Log: tracks events
  - Pulse Log: records pulse activity
  - Engineering Log: monitors the performance of key sub-systems



#### Download

 X26P firing data can be uploaded to EVIDENCE.com via EVIDENCE Sync software

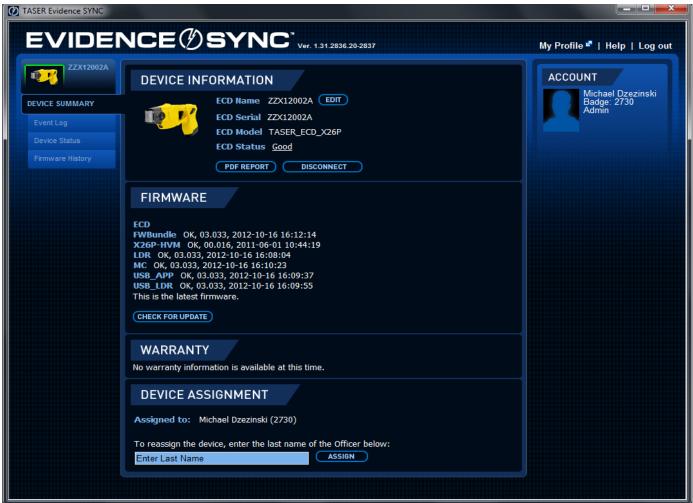
 EVIDENCE Sync software may also be used to download firing data to local computers

#### **EVIDENCE.com**

- Agency must establish an account on EVIDENCE.com
- There is no charge for EVIDENCE.com-Lite services
- Trilogy Logs can only be recovered and displayed through EVIDENCE.com



#### **EVIDENCE Sync Upload**





## X26P Download (\*\*) TASER EVIDENCE.C(\*\*) M\*\*

**Taser Information** 

Dept. TASER Instructor

 Serial
 ZZX1201MX

 Model
 TASER X26P

Firmware Version Rev. 03.036

Device Name ZZX1201MX

Health Active

Report Generated by

Name Dzezinski, Michael

Badge ID 2730

Local Timezone US Mountain Standard Time (UTC -07:00)

Generated On 17 Dec 2012 12:01:06

#### Device (X26P)

Seq#	Local Time [dd:mm::yyyy Hr:min:Sec]	Event [Event Type]	Duration [Seconds]	Temp [Degrees Celsius]	Batt Remaining [%]
1	11 Dec 2012 11:09:19	Armed		30	90
2	11 Dec 2012 11:09:21	Trigger	5		90
3	11 Dec 2012 11:09:26	Safe	7	31	89
4	11 Dec 2012 11:09:27	Armed		32	89
5	11 Dec 2012 11:09:28	Trigger	5		89
6	11 Dec 2012 11:09:33	Safe	6	32	89 TAS

#### **USB** Icons

 When the X26P is connected to the computer via a USB port, the USB icon will show in the display, as well as the serial number of the X26P





## TASER Cartridge



### Cartridges

- TASER cartridges are used in the X26, X26P, M26 and SHOCKWAVE CEWs
  - Available in 15, 21, 25 and 35 ft\*
- All TASER cartridges have a 5 year expiration from date of manufacture

TASER cartridges are deployed by electrical arc. Discharging CEW, static electricity, or other electrical source can cause inadvertent cartridge deployment.



## Cartridges



15 ft.
(4.6 meters)
Yellow blast doors
Live cartridge
Regular probe



21 ft. (6.4 meters) Silver blast doors Live cartridge Regular probe



XP 25 ft. (7.6 meters) Green blast doors Live cartridge XP probe



XP 35 ft.
Special Duty
(10.67 meters)
Orange door
Live cartridge XP probe





LS 21 ft.
(6.4 meters)
Blue cartridge/blue blast doors
Short probe

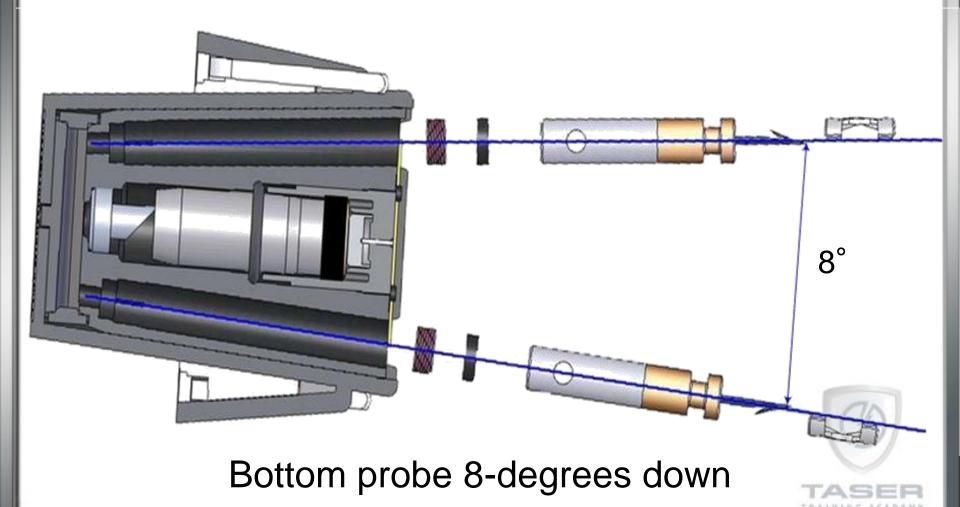
## Cartridge Inspection

- Blast doors attached
- No cracks
- Locking tabs are not compressed
- Expiration date (cartridges have 5 year life)

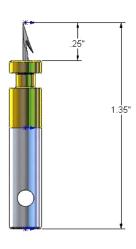


### 15, 21, LS & XP25 TASER Cartridges

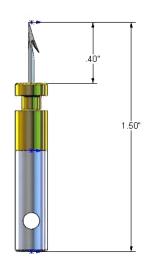
The top probe is "horizontal" relative to CEW



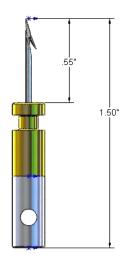
# TASER Cartridge Probe Assembly



DART ASSEMBLY TRAINING.



DART ASSEMBLY REGULAR.

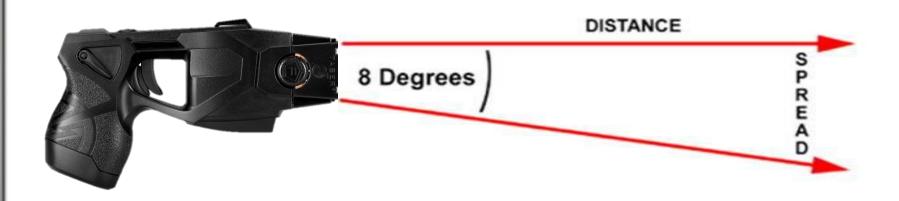


DART ASSEMBLY XP.



# TASER Cartridge Probe Spread For 15, 21 & 25 Foot Cartridges

• Rule of thumb: ~1 foot (.3 m) spread for every 7 feet (2.1 m) of travel



(m)	.6m	1.5m	2.1m	3m	4.5m	6.4m	7.6m
Target Distance (ft)	2'	5'	7'	10'	15'	21'	25'
Spread (in)	4"	9"	13"	18"	26"	36"	38"
(cm)	10cm	<b>23cm</b>	33cm	<b>46cm</b>	66cm	91cm	109cm

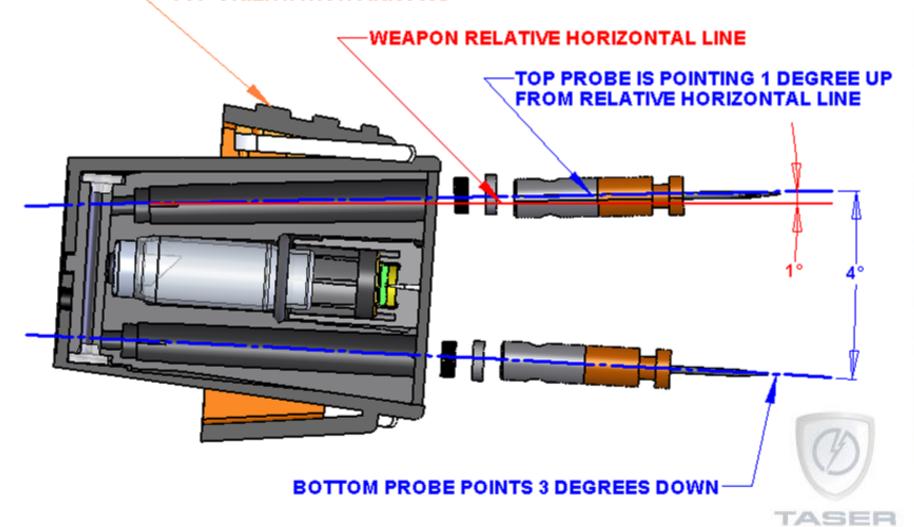
#### XP 35 ft

Special Duty (10.67 meters) Orange door Live cartridge XP probe



# XP35 TASER Cartridge

TOP ORIENTATION ARROWS



**TOP PROBE** 

# Probe Trajectory For XP35 Special Duty Cartridge

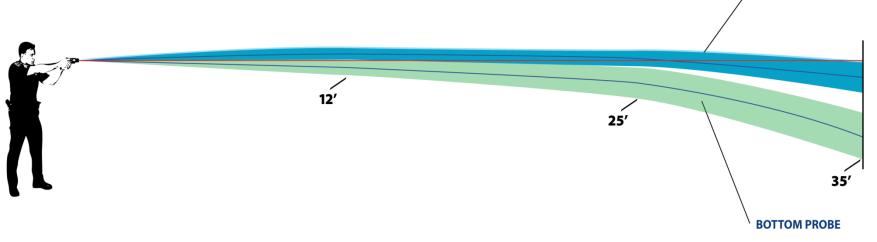
#### **CARTRIDGE TRAJECTORY:**

35' CARTRIDGE

#### **WARNING:**

At distances less than 25', the top probe travels above the laser sight point up to a maximum of approximately 4" at a distance of 12'. Adjust your aim accordingly at these distances to avoid hitting sensitive body areas.

See graphic representation below.



AVERAGE DART TRAJECTORY IN CORRELATION TO A LASER SIGHT LINE						
DEPLOYMENT	12' (3.66 m)	25' (7.62 m)	35'(10.67 m)			
TOP PROBE AVERAGE	+ 4.0" (10.16 cm)	+ 0.7" (1.78 cm)	- 8.0" (-20.32 cm)			
BOTTOM PROBE AVERAGE	- 3.0" (7.62 cm)	- 16.0" (-40.64 cm)	- 34.0" (-86.36 cm)			

Average Probe Trajectory

Laser Sight Line

Top Probe (97% of probes fall within this area)

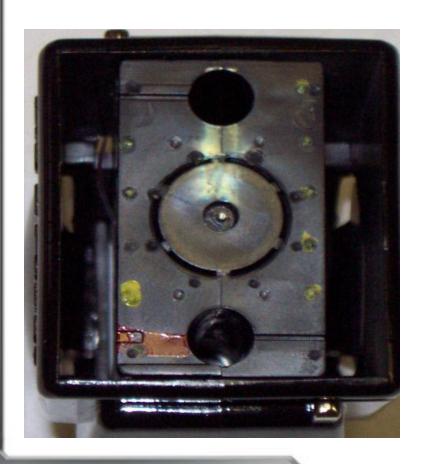


Bottom Probe (97% of probes fall within this area)



# Cannot Discharge

# May Discharge (but not reliably)





#### Wires

- Steel with insulated coating
- Can break easily if stepped on or pulled
- Inadvertent contact with wires or the probe during discharge can result in electrical shock



#### Wires

- TASER operator should advise officers to avoid wires during restraint
- Avoid crossing wires when multiple TASER
   CEWs are deployed



#### **AFIDs**







- Each cartridge contains 20-30 Anti-Felon Identification Tags (AFIDs)with the cartridge serial number printed on them
- Cartridges manufactured after November 2009 have the serial number and 2D bar code LASER engraved onto the back of the cartridge



# TASER Cartridge Shipping Covers

- On cartridges for safe shipping
- Do not attempt to load a cartridge with the cover in place onto a TASER CEW

Covers should be removed prior to cartridges being taken into the field



### Cartridge Cover removal



Pull out the sides of the cartridge shipping cover with index and middle fingers



Push up on cartridge with thumbs



# Loading TASER Cartridges

Hold the TASER cartridge by the sides while keeping all body parts away from the front

- be cautious of inadvertent cartridge deployment





# Loading TASER Cartridges

- Ensure the safety switch is in the down (SAFE) position
- Point the CEW in a safe direction
- Insert the TASER cartridge into the deployment bay until it is seated





## Cartridge Safety

- Deployed by electrical discharge
- Can be discharged by static electricity (TASER cartridge only)
- Keep hands away from the front of cartridges
- Do not inadvertently point cartridges at yourself or at anyone else



# Improperly Replacing Blast Doors



# Improperly Replacing Blast Doors





#### **Tactical Considerations**



#### Holster: Pros & Cons

Support Side Carry	Dominant Side Carry
+ Lower Risk of Drawing Wrong Weapon Under Stress	+ Weapon Retention
+ Hip crossdraw = Faster Engagement on Target	
+ Easier ID as a CEW By Other Officers	Higher risk of weapon confusion
Weapon retention issues, depending on DT training	Known incidents of shootings by mistaken weapon confusion

Refer to your department's tactical experts to make your own policy on how to carry, holster, and deploy the TASER CEW

# Flammability

TASER CEW can ignite explosive materials, liquids, fumes, gases, vapors, or other flammable substances, gels, and materials

Gasoline, sewer gases, meth labs, flammable personal defense sprays, hair gels, butane lighters, etc.

## Flammability

- Personal Defense Sprays
  - Some propulsion agents (carriers) are flammable
  - Some carriers are alcohol and oil based





# Line Up The CEW With The Target

- Keep CEW in line with target
- Get both probes on target
- May need to angle so bottom probe hits leg
- May need to turn CEW sideways if subject is laying down

#### **TARGETING**

- Avoid intentionally targeting the CEW on sensitive areas of the body such as the head, throat, breast, chest or area of the heart, genitals, or known pre-existing injury areas without legal justification.
- The preferred target areas are below the neck area for back shots and the lower center mass (below chest or heart area) for front shots
  - Avoid sensitive areas





Preferred Target Zone Rear (when possible)

Below neck (blue zone)

- Large muscles
- Avoid head

The back is always the preferred target area when reasonably practicable under the totality of circumstances of the incident.

Preferred Target Zone Front

(when possible)

Lower torso (blue zone below chest)

- More effective
  - Split the belt line
  - Larger muscles
- Reduces risk of hitting sensitive body areas (see current product warnings)
- Increases dart-to-heart (DTH) safety margin distances
- Do not intentionally target genitals

- Deploy per department SOP
- Greater probe spread generally increases effectiveness
  - "Incapacitation by all measures was found to be a function of spread; generally increasing in effectiveness up to spreads between 9 and 12 in. There were notable differences between front and back exposures, with front exposures not leading to full incapacitation of the upper extremities regardless of probe spread."1
  - If practical, minimum four-inch spread to have some effect
  - Narrow probe spreads typically are more effective if one probe is above the belt and the other probe is below the belt

### Neuro-Muscular Incapacitation (NMI)

- There are different levels of NMI ranging from limited area effects to significant body lockup
- The greater probe spread, the higher likelihood of NMI
- CEWs may not achieve total NMI incapacitation
- Subject may maintain muscle control, particularly in arms and legs (depending on many factors, including probe locations)
- Be prepared with other force options including a drivestun follow up to spread NMI over a wider area if necessary and reasonably appropriate
- Drive stun alone usually will not achieve NMI, only localized pain



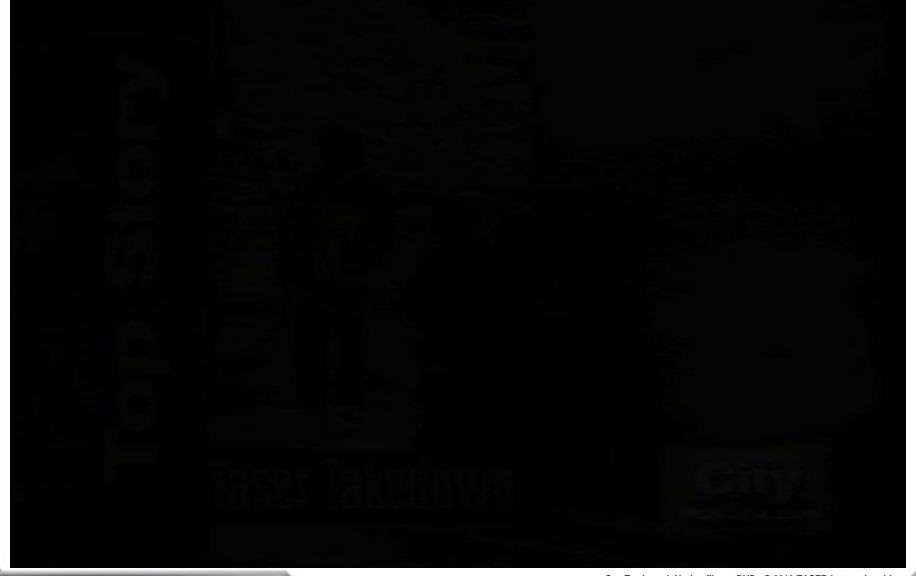
- If practicable, deploy probes at suspect's back:
  - Clothing fits tighter
  - Surprise factor
  - Stronger muscles usually even more overwhelming
- Aim at preferred target zones
- Avoid sensitive areas of the body



#### Video learning points:

- Aimed at open front of unzipped jacket
- Utilized physical cover and cover officers
- Custody plan in place prior to deployment
- Suspect taken into custody during the TASER CEW cycle





- Try to aim where clothing fits more tightly like the back or rear
- XP cartridges are more effective in reducing clothing disconnects



Electrical arc can penetrate SOME soft body armor and may jump up through clothing up to approximately 1.5 – 2 inches total or approximately 0.75 – 1 inch per probe



# **Arcing Distance**

Factors that may reduce the arcing (jumping) distance:

- -25 foot & 35 foot cartridges
  - Thinner wire insulation
  - Longer wires = more resistance
- -Wires touch
- Wires fall on conductive surface such as concrete or wet grass



# Some Causes of Limited Effectiveness

- Miss or single dart hit
- Incomplete, broken, or intermittent circuit
- Loose or thick clothing
- Low nerve or muscle mass
- Obese subject
- Limited probe spread
- Wires break
- Operator error



## "Silence is Golden"

- Arcing electricity is noticeably louder when electrical charge is not being delivered to a subject
- Non-conductive targets are loud
- Use conductive targets in training



### "Silence is Golden"

- No change in subject behavior + loud arc
   bad connection or TASER CEW use is ineffective
- Reload X26P CEW and target different area or 3-point drive stun follow up with cartridge still attached



#### Loud Arc = Bad Connection

Conducted Energy Weapon Evaluation Project



Less Than 100%

## **Probe Spreads**

Close spreads are less effective . . .

#### **Tactical Considerations**

- If practical, attempt to:
  - gain compliance using verbal commands
  - use negotiation or commands before moving to CEW
- Verbal commands, display of TASER CEW, turning on the LASER, or arc display may gain compliance



## Jail Video



## Injuries From Falls

- NMI frequently causes subject to fall
- Falls are often uncontrolled and subject is often unable to protect or catch himself
- Falls, even from ground level, can cause serious injuries or death
- Consider the environment (including the ground surface) and the likelihood of a fall related injury
- Consider intermittent connections/effects, such as intermittent clothing disconnects



### Intermittent Connection

# Increased Deployment Risk Examples

#### Subject:

- on an elevated position or platform
- running or under momentum
- operating vehicle or machinery
- in flammable or explosive environment



## Increased Deployment Risks Video

#### Video Learning Points

- Elevated position
- Subject climbing over rail
- Loose clothing



### Suicidal Inmate Video

# Increased Deployment Risk Examples

- Obviously pregnant
- In water, mud, muck (drowning risk)
- Sensitive target areas
- Obviously frail or infirm
- Low body mass
- Probes in heart area or chest area
- Extended, repeated, or continuous discharges



#### **Tactical Considerations**

- Avoid "TASER CEW over-dependence"
- Have reasonable and appropriate force options available when practical
- Consider cover and distance tactics
- When practical:
  - have at least one back-up officer
     present to control/cuff under power
  - -optimize choice of landing zone
  - -deploy to back (rather than front)



## Contingencies

- CEW may have limited or no effect
- No weapon system will operate or be effective all of the time
- A CEW or cartridge may not fire or be effective
- Be prepared to transition to other force options



#### Dud?

If a cartridge doesn't fire immediately, stay on target until safety engaged.

#### Probe Placement

(Does not apply to 35 ft cartridges)

 Deployment range from point blank to 15, 21, or 25 feet depending on cartridge

 Preferred range = 7 to 15 feet from target for probe spread, officer safety, and accuracy



Deployment Distance Considerations

Deployments from 0-7 feet (0-2 meters):

- Higher hit probability
- Limited probe spread = low amount of muscle mass affected
- Short reactionary distance



## Deployment Distance Considerations

Deployments from 0-7 feet (0-2 meters):

- Consider targeting the waist area to "split the belt line":
  - Affect core muscles needed for balance
- Avoid probes near the heart or in chest:
  - Low probability of NMI
  - Increases dart-to-heart safety distance



#### Close Distance Video

#### Video Learning Points

- Both probes in the chest
- Little spread
- Some effect but not NMI
- Subject able to pull out probes



## Close Distance

## Deployment Distance Considerations

Deployments from 7-15 feet (2-4.5 meters):

- Higher hit probability
- Good probe spread = good amount of muscle affected
- Slack in wires (with 21 or 25 foot cartridges)
- Good reactionary distance



## Deployment Distance Considerations

Deployments from 15 - 25 feet (4.5 - 7.6 m):

- May be out of range of 15/21' cartridges
- Fair hit probability with both probes
- Large probe spread = large amount of muscle affected
- Less slack in wires
- Larger reactionary distance



#### Be Careful of Distractions

- There are incidents/cases where officers have been accused of using excessive CEW exposures caused by distractions (including by nearby family members, bystanders, incident witnesses), stress, etc.
- Be alert to and avoid potential or occurring distractions and stress induced hesitations that result in unnecessary additional 5-second CEW cycles or extended exposures
- Distraction and stress may result in the officer inadvertently holding the trigger down unintentionally which may result in a constant electrical discharge of unintended duration



## Controlling/Cuffing Under Power

You can go hands on with the subject during the 5-second cycle without feeling the effects of the NMI

- Electricity generally follows the path of least resistance
- Do not place hands on or between probes



## Controlling/Cuffing Under Power

- Use each 5-second CEW cycle as a "window of opportunity" to establish control/cuff while the subject is affected
- Move in, control, and handcuff subject while the CEW is cycling during the 5second "window of opportunity"



## Controlling/Cuffing Under Power

- Be aware that emotionally disturbed persons (EDPs), focused, intoxicated, deaf, and excited delirium individuals may not comply with verbal commands
- The need for multiple 5-second cycles, or extended or prolonged CEW exposures, may be avoided or reduced by "controlling/cuffing under power" during the "window of opportunity" the 5-second CEW cycle provides

## Avoid Extended, Repeated, or Prolonged TASER CEW Applications<sup>1</sup> Where Practicable

- Each trigger pull and/or 5-second cycle or discharge must be legally justified
- Avoid extended, repeated, or prolonged CEW applications where practical
- The application of the CEW is a physically stressful event
- Attempt to minimize the physical and psychological stress to the subject



## Avoid Extended, Repeated, or Prolonged TASER CEW Applications Where Practicable

- Only apply the number of 5-second cycles reasonably necessary to capture, control or restrain the subject
- Human studies have not shown that CEW applications affect or impair breathing patterns
- If circumstances require extended duration or repeated discharges, the operator should carefully observe the subject and provide breaks in the CEW stimulation when practicable



#### **Tactical Considerations**

- Keep sufficient slack in the wires
- Move with the subject if they start to roll
- If only one probe hits or low probe spread, consider drive stun follow-up with cartridge still in place.



## Look for a Change in Behavior

- Look AND listen when evaluating the effectiveness of a CEW deployment
- Watch the subject's reaction and look for a change in their behavior
- Listen to the sound of the CEW
- Quiet pulsing typically indicates a good connection

## Look for a Change in Behavior

- Loud arcing sound typically indicates NO or intermittent connection
- Intermittent arcing typically indicates a poor connection such as a clothing disconnect



## If No Change in Behavior

- Reload new cartridge and re-engage
- Keep expended cartridge in place and apply a three-point drive-stun follow up
- Employ other force options, other alternatives, or disengage



## Selective Targeting

- The CEW may be a good option for enclosed environments and close quarters such as houses, courts, jail cells, emergency rooms, crowd control, etc.
- Target specific



#### Close Quarters Video

- Small civil courtroom
- Suspect, victim and witness very close
- Bailiff deploys X26 at very close range
  - Initially forgot to arm the X26
  - Avoids victim and witness
  - Suspect incapacitated and held until backup arrives
- Would baton or pepper spray have been a good option?



## Close Quarters Video

#### Correctional/Jail Use

- Good option for this setting
- Deploy CEW as one of several use of force options
- Good deterrent effect
- Decontamination (such as necessary for chemical agents) not a factor



## Suicidal Subjects

- Follow your agency basic officer safety rules/training when dealing with suicidal subjects
- Establish deadly-force cover as needed, available, necessary
- CEWs can be an effective way to deal with suicidal subjects
- The CEW is NOT a substitute for deadly force

## Suicidal Subject Video

#### Video Learning Points

- Close quarters
- Small target (in sitting position)
- Targets arm holding the knife
- Immediately disarm and control subject



# Suicidal Subject

# Subject Chemical or Mental Influences

- The CEW in probe mode can be effective on subjects affected by chemical or mental influences because it is not solely dependent on pain for effectiveness
- It achieves effect or incapacitation by affecting the sensory and motor functions of the nervous system

# Subject Chemical or Mental Influences

- Once the subject is controlled/cuffed, evaluate the need for medical attention
- If subject loses consciousness immediately request expedited emergency medical services and carefully monitor



## Subject Chemical or Mental Influences



#### **Drive Stun**



#### Drive-Stun Backup

Probe deployments are usually more desirable/effective than drive stuns (that are not three-point deployments)

- NMI vs. pain compliance
- Can be applied from a safer distance
- Usually require fewer cycles



#### Drive Stun with Live Cartridge

- Can be effective, but the probes may deploy into the subject
- Close probe spread will likely not have significant effect or NMI
- Leave deployed cartridge in place and apply (three-point) drive stun away from probe impact sites

This tactic could result in significant injury if applied to a subject's head, neck, or other sensitive area



# Drive Stun with Live Cartridge



# One Probe Hit With (three-point) Drive-Stun Follow up

If only one probe impacts the subject, or if the probe spread is close or ineffective, a drive stun with the cartridge still attached can act as the second probe and complete the circuit, thus may cause NMI



#### Angled Drive-Stun

See the Angled Drive-Stun presentation on the training DVD for more information on this technique



## Drive Stun Follow Up

#### Drive-Stun Backup

- To use the drive stun without firing the probes, remove the live cartridge
- The drive stun will typically not cause NMI, only pain compliance
- If not effective, evaluate the location of the drive stun, consider an additional cycle to a different pressure point or consider an alternative force option

#### Drive-Stun Backup

# Do not hold on to a live cartridge while applying a drive stun

If cartridge gets within approximately 2 inches of the CEW, it may deploy



Drive-Stun Mode

- For maximum effectiveness, drive the CEW into certain pressure points
- Use care when applying the drive stun to the neck or groin
- Stay away from the trachea, the back of the neck and the genetals



# Drive-Stun Marks (X26)



Drive stun marks - fresh



Drive stun marks - 6 days



Drive stun marks - 1 day



Drive stun marks - 7 days



## Drive-Stun Techniques

#### **Animals**



#### Effects on Animals

If animals are stunned, consider having animal control stand by to apply a restraint during the cycle

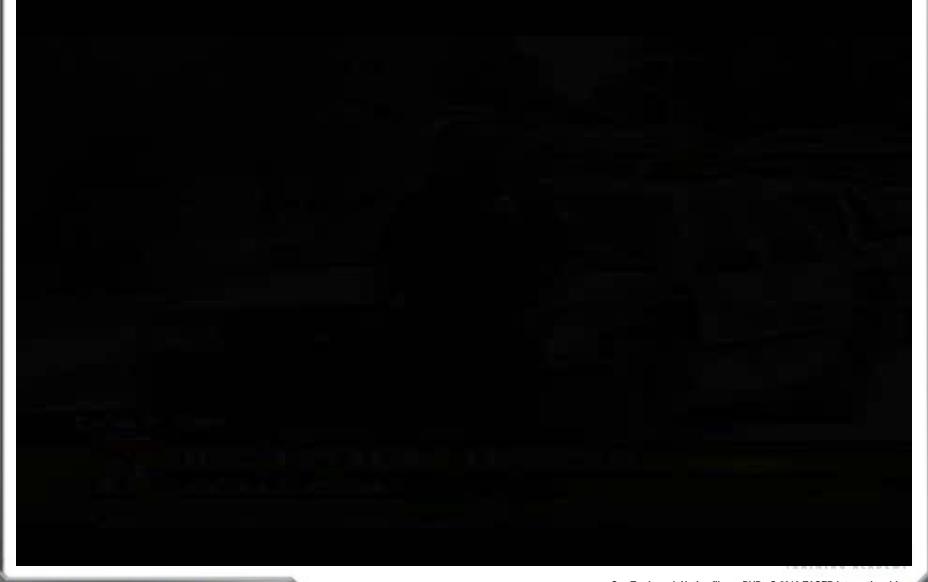


#### **Animal Use Video**

- Not a good environment for a firearm
- Successful deployment on running and charging dogs
- Pit bull video was captured on TASER
   CAM



#### **Animal Use**



## Police/Military K-9 Caution

- If K-9 bites probe or between probes during CEW deployment, the dog may receive a shock
- An electrical shock to a K-9 may result in a hesitant, hesitating, or bite adverse K-9
- Develop procedures and train K-9 handlers and CEW operators on this issue



#### Post Incident



#### Clearly Record the Incident

- If available, use on-officer point of view ("POV") incident recording equipment
- When safe, consider using your radio to establish record of significant events with dispatch time logs (call in):
  - -Immediately at end of CEW use
  - Immediately upon subject being handcuffed
  - Person's perceived medical status and condition and any changes

# Probe Removal Policy Considerations

- May officers remove probes:
  - -Common probe penetration
  - -Sensitive location probe penetration
  - Uncommon probe penetration
- Proper handling of removed probes
  - -Bio-hazard
  - Evidentiary value



#### Probe Removal Follow-up

- Note if probes penetrated skin
- Photographs of impact site and injuries
- Medical follow-up
- Ensure probe and barb are intact





#### Considerations for Handling Used Probes (Field Deployments)

Each agency will establish its own procedure for probe collection, retention, and disposal

#### Factors to be considered include:

- Unanticipated probe-related injury
- Probe in sensitive area
- Deeper embedment of probe due to movement, body position, or pressure on probe
- Evidence collection, proper storage, and retention\*





# Considerations for Handling Used Probes (Field Deployments & Training)

Each agency will establish its own procedure for probe collection, retention, and disposal

- Treat probes that have penetrated the body as contaminated needles (use gloves)
- Grab probe firmly and quickly pull (pluck) straight out (consistent with agency policy)
- Carefully place used probes sharp-tip first into either a sharps container or into the cartridge side wire pocket container, secure in place, and <u>place in</u> a secure location where no one will accidentally touch probes

#### **Evidence Collection**

Consider (consistent with legal requirements and agency policy):

- Photographing injuries, probe impact or energy arcing sites or contact points
- Collecting cartridge, probes, AFIDs
- TASER CEW Evidence Collection and Analysis Course



# Arrest-Related Death (ARD) Warning Signs

Should one or more of the following behaviors manifest, the suspect may require immediate medical assistance due to pre-existing conditions, possible overdose, cocaine psychosis, excited delirium, etc. Consider having EMS standing by.

- Bizarre or violent behavior
- Signs of overheating/profuse sweating
- Disrobing
- Violence toward/attacking glass, lights, and reflective surfaces
- Superhuman strength and endurance
- Impervious to pain self-mutilation
- Loss of consciousness
- Disturbance in respiratory pattern



# RESUME PLAY

#### Post Arrest-Related Death Evidence

- Do not assume medical examiner is familiar with sudden death, arrest-related death, excited delirium,
- Have core body temperature obtained prior to death (or as soon as possible after death)
- 1 800-UM-BRAIN University of Miami
  - VERY time sensitive 24 hours to collect, harvest, prepare, and freeze brain samples (www.exciteddelirium.org)
- Collect samples for determining acute and chronic drug (especially stimulant) abuse
- Conduct Psychological Autopsy



#### Post Arrest-Related Death Evidence

- Download CEW as soon as reasonably possible, including time-drift correction
- Collect copies of all AED/cardiac monitor rhythm strips, digital downloads, maintenance downloads, serial numbers, etc.
- Collect copies of all EMS and emergency room records
- Collect subject's clothing
- Collect and carefully maintain as evidence all expended cartridges, probes, and wires



#### Arrest-Related Death Responses

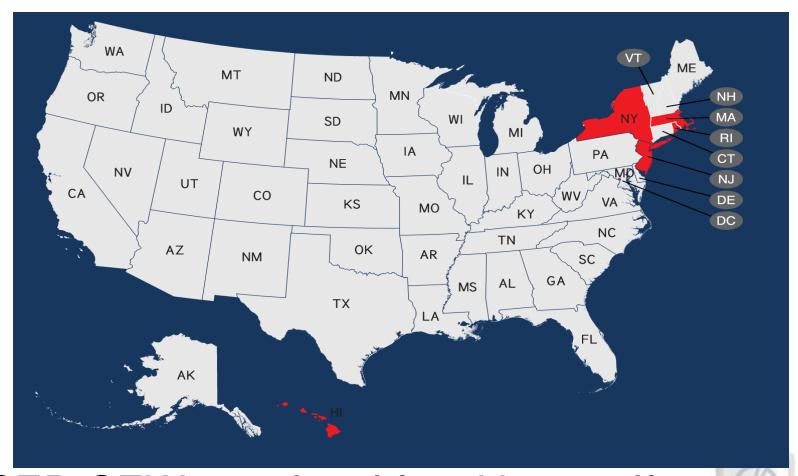
- Recommend PIO/Agency Spokesperson attend TASER training to understand technology/organize crisis plan for an arrest-related death (ARD)
- In the event of an ARD following the use of a CEW, refer to the ARD checklist located in the Support Materials folder
- Obtain as much information as possible regarding the incident
- Prepare media statement and provide media with information about TASER technology



## Private CEW Ownership



#### Consumer Defense TASER CEWs



TASER CEWs are legal for citizen selfdefense in 45 states\*



#### Initial CEW User Certification:

M26, X26, X26P, X2 or X3 CEWs

- Minimum of 6 hours on the CEW to be carried/used
  - Some states have mandatory CEW training requirements
- Must use supplied TASER user course lesson plan in its entirety (including all PowerPoint slides and instructor notes)



#### **CEW User Re-Certification:**

M26, X26, X26P, X2, or X3 CEWs

With the release of each new set of warnings or training PowerPoint instructors and agencies are to immediately distribute and mandate review of the updated product warnings and user update course PowerPoint presentation to all officers or others authorized to carry or use a CEW.

- Must complete, review, and be familiar with User Update PowerPoint
- Must fire at least two cartridges annually
- Check <u>www.TASER.com</u> 72 hours prior to training for current training and warning materials



# Non-Firing Drills



# Firing Drills



#### **Isolation Exercises**



#### Stress Course



#### Scenarios



#### **Conclusion and Test**

Questions?

